THE

REGISTER OF PENNSYLVANIA.

DEVOTED TO THE PRESERVATION OF EVERY KIND OF USEFUL INFORMATION RESPECTING THE STATE.

EDITED BY SAMUEL HAZARD.

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LUZERNE ANTHRACITE COAL REGION.

It is more than two months, since I promised a friend in Philadelphia, to give him such information as I possessed respecting the *Luzerne Anthracite Coal Region*; but harvesting and the extreme heat, have heretofore prevented. Yesterday, I received a letter from a gentleman dated Pottsville, July 30, 1830; from which the following is an extract:

"Having very frequently been applied to for information relative to the *Susquehanna Coal Region*, particularly the *Wyoming* and *Lackawanna*—and believing that you are better informed respecting the quality of Coal, price of land—of mining—distance from and facilities of getting to market, &c. than any other man—I have presumed on your long friendship, to address you on the subject. Speculators and enterprising men in this vicinity, are seriously looking towards the Susquehanna, and indeed, some considerable purchases have already been effected—yet persons generally, are wholly ignorant of the advantages possessed by that region."

Thus reminded of my promise, I take the matter in hand, and will endeavour to give such facts and remarks as shall place the subject in as clear a light as possible, consistent with brevity.

In presuming to make this letter a public instead of a private communication, thus answering several at the same time, allow me in justification to say—that I went to Luzerne in 1799, and removed from there in 1817.—Having published a newspaper in Wilkesbarre the chief part of that period—in 1810 having aided the Marshal in taking the Census—having been considerably in public life, being 3 years a member of Assembly from that county, it must be obvious that business would lead me to mingle among the people; to travel much over the hills and valleys—to become acquainted with the situation of places deemed eligible for business, and to inquire into, suggest, and explore, the best routes to market.

Since that period, business has led me to Luzerne almost every year; and I have made it a point to examine the whole coal formation again and again, both as an object of private interest and liberal curiosity. The particular concern I have taken in the subject will be readily imagined, when I mention, that, during the late war, in company with Jacob Cist and John W. Robinson, Esqrs. I commenced working the Mauch Chunk mines, now so justly and far famed—that we sent some thousand bushels to Philadelphia—introduced the Anthracite there with no inconsiderable difficulty and expense, gained some credit for enterprise, and on my part, lost a good deal of money; for just as our preparatory expenditures had been made and the Coal was getting into demand, Peace fortunately for our country, came, and opened a way for Liverpool and Virginia Coal, to our exclusion. I feel, therefore, upon the subject of coal, and especially the coal region of Luzerne, that I am authorised to speak without incurring the imputation of vanity or presumption.

I proceed then to reply to the enquiry made—"*Respecting the quality of the coal*?

There is every variety, from almost pure carbon to that which is mixed with slate, until it becomes worthless. On the hypothesis that anthracite is not a mineral, but formed from deposites of vegetable matter, (which was the opinon of the late Mr. Cist, whose sentiments are worthy of great consideration,) it would follow that the centre and lower part of the mines would be most pure, and as you approach the upper part, be more mixed with impurity, until gradually degenerating, it changes or runs into slate. Such seems to be the fact. Those, therefore, who have seen only the outer stratum, might pronounce it indifferent or bad; while those who only see the better veins, would say it was superior. In point of fact, and I assert it confidently, the *Luzerne coal is quite equal to that of Pottsville or Mauch Chunk*, taking it generally; and were I called upon to express a preference, it would be rather in favour of that of Luzerne. There is a vein of several feet in the Baltimore Bed, which is pure and beautiful beyond description; and the mine recently opened by Messrs. R. Miner and Z. Bennett, is remarkable for its purity and excellence, so far as explored. The last mine I mention more particularly, because Professor Silliman in his interesting, and in the main, very correct notes on the Susquehanna & Lackawanna basin, speaks of this as only 5 or 6 feet deep. That is the depth to which coal has been taken out. The auger has been sunk 18 feet 4 inches into solid coal and is not yet at the bottom. It is not necessary to depreciate the Schuylkill or Mauch Chunk coal to elevate that of Luzerne. I would not if I could. No one takes a more lively interest in the success of the Mauch Chunk Company, especially, whose wonderful sagacity, enterprise and perseverance, I have reason to know, deserve all praise. The coal is good enough; and that of Luzerne is no way inferior.

"*The price of Land?*"

From ten to twenty dollars an acre, some of it very tolerable farming land. If there are houses and improvements on the lots, they might increase the cost.

"*Price of Mining?*"

From 40 to 50 cents a ton after the mine is opened. The valley being very productive, provisions and extra hands, plenty, reduce the price of labor considerably.

"*Distance from, and facilities of getting to Market?*" Therewill be three principal outlets for theLuzerne coal.

1st. Down the River to tide water at Havre de Grace, thence to Baltimore, Washington City, the eastern & southern, (and perhaps foreign) Markets; supplying also the country along the Susquehanna: viz: Columbia, Northumberland, Union, Mifflin, Perry, Dauphin, Lancaster, Cumberland and York counties. The following is the present cost of taking coal to Tide—

Ark 90 feet long to carry 60 tons will cost		$60
Pilot and Arkmen take her by the job to Columbia for		50
[so far insuring the load that they lose their hire if they do not deliver her safe.]		
Pilot and Arkmen, from Columbia to Havre de Grace,		40
Coal in mine 60 tons at	50	30
Mining	50	30
Hauling to River,	50	30
		240
The ark will sell for 20 at Havre de Grace		20
60)220(3 67 a ton.		220

To this must be added, waste, superintendence, and some other slight contingencies.

This is the calculation given me by persons well acquainted with business; but I look upon it as rather too favourable. For instance, when the water is not high, then arks do not take through, from Columbia, more than 50 tons, leaving or selling 10 tons at that place—at some profit, however. Some arks are stove on the way from Wilkesbarre; but the coal is seldom lost; for when the river falls it is taken out and used by the neighboring smiths, paying the cost.

By this channel, therefore, the coal dealers of Luzerne now enter into competition with those of Pottsville and Mauch Chunk, in all markets except Philadelphia and the neighboring country. When the Canal is completed, new facilities will be afforded for the down river trade.

2d. The second outlet I shall notice, will be that of the Gennessee and Lake country, by the contemplated canal up the Susquehanna, to meet the canal now making by the state of New-York, from the Tioga branch to the Seneca Lake.—The rapidity with which that country is populating—the fertility of the soil rendering it expedient to keep as little land in timber as possible—the fact that the salt works at Salina are already partially stopped for want of fuel—the coldness of the climate, the length of the winter—the facilities of transportation among the lakes—of getting into the line of the canal, and going into Erie and Ontario—the probable demand for fuel at York, Kingston, Montreal and Quebec, all taken into consideration, open, it is thought, by those less sanguine than I am, a prospect of an early and extensive market, in that northern region. It is supposed by some that the demand in that quarter will exceed that of Philadelphia and the neighbouring counties. And this market Luzerne will have without a competitor. From the Lackawana to the Seneca Lake by the canal, will be about 120 miles. I do not trace the distance beyond, nor state the number of inhabitants in the different counties who may derive a partial supply of fuel from Wyoming; for it would swell this letter to too great a length. But the enquiry would be interesting and instructive.

3d. The third outlet for the Luzerne coal—will be by the several routes contemplated, or in operation, from the Lackawana eastwardly. There will be three of these. 1. A rail road is authorized from the Lackawana, to pass up Spring Brook—through Drinker's settlement on the Lehigh, to the mouth of Broadhead's creek on the Delaware—there meeting the Delaware canal, and taking you either to Philadephia, or by the Morris canal, to N. York. From the Lackawana to the mouth of Broadhead's creek on the Delaware, is something less than 50 miles. 2—A Rail Road is authorised from the Lackawana, up Roaring Brook, through to Milford on the Delaware, and thence to Newburg on the North River. The distance will be about 130 miles and go from the heart of the Anthracite region. 3—A third route is now in full operation. I refer to the Hudson and Delaware canal and Rail Road Company's works.—From Carbondale in Luzerne county, on the Lackawana, a Rail Road is completed 16 miles to Honesdale, and from thence there is a canal of 106 miles, to Eddyville on the North River. This is one of the noblest undertakings ever accomplished in our country. The company has expended, in completing the construction, purchasing coal lands, opening mines, &c. 2,300,000. This season they will take to the Hudson 55,000 tons of coal. Next year, probably, 100,000 tons, and without some unlooked for misfortune, the stock must rise, like that of the Schuylkill Navigation Company, a good deal above par. They will be able to make a dividend during the coming winter; and I should not be surprised to see stock in April next, quoted at 132. It is now, very naturally, having laid out a great deal of money, though judiciously in the main, and made as yet no dividend, below par.

The termination of the rail way, at Carbondale, now being within 22½ miles of the Susquehanna, it will, of course at an early day, be extended to that river, to partake of the trade of the Valley.

By these eastern routes, from the Lackawana, it is suppposed an extensive trade will be carried on—supplying N. York City—eastern, and foreign markets, (should there be a foreign demand,) furnishing fuel to all the populous and rich counties and cities along the Hudson, without competition or rival, and from Albany going west to Utica, and north on the Champlain canal.

4. A fourth channel of communication, opens from Wyoming to Market. I refer to the canal by the Nescopeck to the Lehigh near Lowrytown, thence down the Lehigh and Delaware Canals, to Philadelphia. The distance from Wilkesbarre to that city by this route, will be about 170 miles. A rail road of 15 miles from Wilkesbarre, across to the Lehigh, will shorten the distance more than 40 miles, and will be a medium of the most active trade, especially in dry goods, lighter and more valuable articles.

It is on these grounds I hazard the opinion, that the Luzerne coal lands intrinsically, are as valuable as those of Mauch Chunk, Beaver Meadow or Schuylkill. And I am greatly mistaken, or capitalists will so regard them, before the close of the coming year. In Luzerne however, competition is yet among the sellers; and lands are therefore low; it must, in the nature of things, be otherwise, when competition springs up among the buyers.

A company, consisting of men of wealth and enterprise, has been formed in Baltimore, and is chartered by the state of Maryland, with a capital, which they can extend to half a million of dollars; the object of which is to enter into the coal business in Luzerne. They have purchased about 50,000 dollars worth of property. It is hardly to be supposed that a company with so much individual wealth—forming a concern with so large a capital, should mean to limit their purchase to an amount so comparatively inconsiderable. They will probably purchase largely, and do an extensive business. The Hudson and Delaware Canal Company we have seen, have expended more than two millions, to penetrate to the Luzerne coal mines. When they begin to realize the profits of their enterprise, it is reasonable to conjecture that they will wish to own coal lands somewhat more extensively. Certainly they will if they act on the common maxims of prudence.

And here, though it be somewhat a digression, I beg leave to make the remark, that, with a rich and enterprising Baltimore company on the south west—a powerful N. York company on the east, it must be apparent that the trade of the Valley will naturally be led to flow in the channels which they will open to their respective cities. At present, Philadelphia furnishes goods, almost exclusively, to the coal, and adjacent region. Will they continue; without an effort, against such powerful competitors, to do so? Would it not be expedient for Philadelphia to form a company, to purchase coal lands, places of business, the keys of the country, and send enterprising but prudent, agents to Luzerne, so as to preserve, if possible, the ground they now hold in a trade, already so important and so rapidly growing? The Importing Merchants, Banks, Auctioneers, Wholesale merchants, and indeed every man of business in the city, it would seem to me, is interested in this question; and the subject does not appear to have attracted the notice it demands.

Professor Silliman has recently visited and given a very interesting account of the Luzerne coal formation, accompanied by a map, to which I refer you. An erroneous impression, however, generally prevails, in respect to the extent of the Anthracite coal fields. Look at his map and apply your rule and dividers. From Newport—the lower line of the valley where coal is found, to the upper line of Pittston, is 20 miles—from thence up the Lackawana to Carbondale, 20 miles—ma-

king 40. Unless you include the river bottoms and go below the bed of the Susquehanna, you cannot calculate on a greater average width of coal than 2 miles. This would give 80 square miles, or 80 times 640 acres, which would be 51,200 acres. But suppose we allow the width, of the Susquehanna valley, (distinguishing it from the Lackawana valley which is narrower,) from the lower line of Newport to the upper line of Pittston, to be three miles we shall then add 20 square miles or

12,800
51,200

Giving 64,000 acres only, of coal land. To be sure, Mr. Silliman, regarding it, and I presume justly, as a coal basin, infers scientifically, as a geologist, that strata of coal intermingled with other substances, extend 1000 feet deep. Still the superficial area is small. Sixty farmers, owning a thousand acres each, would nearly monopolise the whole; and there are I think, half that number in Luzerne, who, taking an average, own half that quantity, and are not disposed to sell. Still there are many who would part with their lands, very low.

With so small a surface and so great a probable depth of coal I do not know what the land ought really to be worth; but certainly more than the present prices. Indeed it would appear to me that at prices somewhat higher, it might be prudently regarded as offering a safe and even profitable investment for capital. Places for business, independent of coal, there is reason to think, must rise in value; for when the balance of trade is considerably in favor of any district of country, every sort of business, well conducted, usually thrives. Farming lands particularly, it would seem almost certain, must be profitable; as there will be a market, like that of a city, offered by the great number of persons engaged in the coal trade, who are consumers, and not producers.

Very few, I apprehend, have extended their views so far as to consider the probable extent of this trade—how rapidly the coal must disappear, and consequently the increased value of the article in mine. From all the mines in Pennsylvania, there have never yet been taken to market, in any one year, more than about 150,000 tons. What will the demand be in ten years? It is to be remarked, that it is not with coal as with iron.—The latter is not destroyed, when used, but remains years in service, and then may be wrought over. The coal on the contrary, when used, is wholly consumed, and the supply annually renewed. Our country doubles its population in a short period. Wood was growing scarce and dear before steam boats began to devour it; and they have swept the forests rapidly. Fuel is as indispensible to comfort and even existence, as food or clothing. In England it is estimated that one ton of coal is consumed to each inhabitant. The last Edinburg Review contains an article on coal of much interest; and as the facts may not be within the reach of many who may see this letter, I will give a few notes which I took from that work on reading it. The consumption of coals in England and Scotland, is estimated at 15,000,000 tons a year. That of London is known.

1820	1,280,664 tons.
1821	1,312,730
1822	1,343,345
1823	1,377,961
1824	1,410,577
1825	1,443,193
1826	1,475,809
1827	1,586,425
1828	1,541,040

There is a duty on all coal shipped or sent by water, of $1 33 per ton, while that taken by land pays nothing, and this is complained of as a great hardship.

Large coal exported to foreign countries, has to pay an export duty of 17*s.* or $3 07 a chaldron—small coal 4*s.*6*d.* or a dollar.

The price of coal in London is from 11 to 12 dollars a chaldron, or 36 bushels averaging 27 cwt.

On the Tyne it is calculated that 39 square miles have been excavated—on the Wear, 40 miles—in Northumberland 26 miles, making 105 miles square of excavations—more than all the Luzerne Anthracite region. A square mile is estimated to contain 12,390,000 tons; that is allowing the coal to be 12 feet in thickness, all the strata combined, we presume, taken into the account. The out put or vend of coal from these districts is estimated at 3,500,000 tons a year.

From the Encyclopedia I learn that, in England those who own mines have to go down from 200 to 1000 feet, to get at veins worth working; and the cost of sinking shafts—steam engines to free the mines from water, and other expenditures, sometimes amount to from 40 to 80,000 pounds sterling before coal can be sent to Market. It would be impossible to credit this, except on the most unquestionable authority.

Considering these facts, it may, I think, be safely concluded, that the coal business, now in its infancy, will increase in Luzerne and elsewhere; how far, you and your friends, will be able to form an opinion as nearly correct as I can. But it cannot be long before a million of tons annually will not supply the demand; of which, allowing the Luzerne Anthracite region to furnish but one half, you will perceive that the long neglected valley of Wyoming must rise into consequence, and property there, of course, appreciate.

I do not know that profits on coal business will be much greater than on other concerns judiciously conducted; but I see no reason to doubt but it will yield a fair return for labor and capital invested; and as it must occupy many hands, will be useful to laborers as well as to those who consume fuel, and to the owners and superintendents of mines. A great deal of money will naturally flow into that channel, and in a few years it will give employment to more persons than our foreign commerce.

Should capitalists step in and monopolize the coal lands, a thing not so difficult to be done, in a great degree, as is generally imagined; they would then realize from the public large profits; but it would be a subject of regret.

For more particulars and much valuable information respecting the Luzerne Coal Region, I beg leave to refer you to the Appendix of Chapman's History of Wyoming, and the late Notes by Professor Silliman, in his valuable Journal.

With great respect, I am your friend and servant,

C. MINER.

West Chester, Aug. 5, 1830.

Note 1. I take no little pleasure in looking over a course of essays written by me more than 20 years ago of the Navigation of the Susquehanna; and opening the readiest way to Philadelphia market. For I was then, although so remote, what I have never ceased to be, an ardent friend to the prosperity of Philadelphia; and bent on directing all the trade possible to our own emporium. Among the suggestions then made, was one which I mean, before long, to bring more conspicuously to public view, and claim some credit for—namely—☞That the proper channel of communication from Wyoming valley to Philadelphia, would be by a Rail Road to the Lehigh, and thence down that stream by a Canal. I did not then expect to live to see 46 miles of the Canal on the Lehigh finished, and the rest with so fair a prospect of completion. Rail Roads were then little talked of, and I think I owed the suggestion to a distinguished merchant of the city, whom I met, as a member of the Assembly, in the winter of 1807-8, at Lancaster; one of the most intelligent and public spirited men I have ever known, and whose uninterrupted friendship—continued to this day—I am proud to boast of. Was there no coal much nearer, *that* would be the avenue for Susquehanna Coal. Some of extraordinary

purity may now go that way. Other produce will seek a market by that route in vast quantities—if the Lehigh company, who hold the control in their hands, are liberal in respect to tolls.

NOTE 2. There are now 11 stores in Wilkesbarre. A few years ago, one of the most extensive merchants told me he had sold the preceding year $30,000 worth of goods—I think he said he had taken that amount in cash. The goods brought from Philadelphia to the Luzerne markets, cannot fall short of half a million.

Suppose a company should be formed with a capital of 200,000 dollars, with the right to increase it to the amount of the Baltimore company's capital; and the company to go into operation when half or $100,000 are subscribed. Shares to be 500 dollars each—200 being subscribed should put the company in operation. Suppose one 5th, or 100 on each share be paid and the same sum to be demandable yearly, unless 3-4ths should order a larger amount—this sum with the usual credits, would enable the concern to take up some of the noblest mines—a large mass of coal lands—and the keys of the country for trade; with a moral certainty that there could be no loss and probably considerable gain from the rise of lands—keeping part of the ownership of that region in Pennsylvania hands, and leaving the way open to take such further measures as wisdom and experience should dictate.

Would the state grant such company a charter?—Would they refuse? Could they refuse, when it was stated that Baltimore had a company chartered, operating there—that New York had a company chartered, operating there—that the question was not *now* whether the coal business should be left to individual competition? It is not so. Great companies exist and are carrying on trade there, and the charter would only place Philadelphia at home, in her own state, on an equal footing with companies from other states.

NOTE 3. There are four prominent points for business, which present themselves in the Luzerne coal region.

1st. At the basin, formed by the dam across the river at Nanticoke, the water flowing up and making a lake of several miles. Here the coal from Newport, Hanover and Plymouth, the mines in each township being extensive, will be shipped for market. The mines are extensive, and the coal good.

The second, at Wilkes-Barre, the county town, already a Borough of more than 1000 inhabitants, and now having eleven dry goods stores. The situation is eligible—the town-plot large, and handsomely laid out—and it must be the centre of an extensive trade, and the site of a large business.

The third conspicuous point, is Lackawana; where the communication from the North River will meet the Canal leading up the Susquehanna; forming three corners by this grand junction. For three miles up the Lackawana River, are considerable Falls, affording admirable water power. This will be wanted for manufactories of all sorts. Canal-boats going to the Genesee country with coal, will bring return-loads of wheat, which here will be manufactured into Flour, ready to be taken to Philadelphia, Baltimore, or New York—as experience and the market shall prove to be most advantageous. It is a sufficient distance from Wilkes-Barre for a town to grow up. The centre of the lumber-business will be at this point. In the heart of the coal-formation, dealers in coal can take their choice of the markets, with some advantages over those differently located—going either northwardly to the Lakes; easterly to the Hudson; or southerly, down the Susquehanna. Professor Silliman, in his late interesting report, speaks of this as most favorable for the manufacture of Iron. Those who know the value of that branch of trade will see the advantages of the situation, containing ore, coal and water power, with abundant resources for charcoal, as far as needed.

NOTE 4. Mr. Buddle's estimate of the consumption of Coal in Great Britain:

The annual vend of coal coastwise from Durham and Northumberland:

	Tons—3,300,000
Home consumption, say one fifth,	660,000
	3,960,000

Which quantity supplies five millions of persons; and supposing the whole population of Great Britain to be fifteen millions, this must be trebled; for although these two-thirds of the population are perhaps less able to afford fuel, yet taking into consideration the manufacturing districts and the cheapness of fuel in the interior, the estimate will not be too high— 11,880,000

Consumed by Iron works, say 600,000 tons of metal, to produce which requires at least four times the quantity of coal in making even pig-metal; and the extraordinary consumption in the Cornwall, &c. mines, 3,000,000

	14,880,000
Exported to Ireland,	700,000
	15,580,000

Exclusive of foreign exportation, which has never exceeded 60,315 chaldrons. [*Village Record.*

[Communicated.]

MILITIA MEETING IN LANCASTER CO.

1782.—CIRCULAR.

Dear Sir—The officers and representatives of the ninth battalion of Lancaster county Militia, upon consultation have concluded from the complexion of the present House of Assembly, that the Constitution and Liberty of the State is at stake in some measure; and sensible of the importance of what has cost us so much blood and treasure, we have thought it incumbent upon us to exert ourselves for their preservation as far as our influence extends, and to warn all who would wish to be free from the dangers that seem to impend, not doubting at the same time, but you are ready to take the alarm, as you must be sensible of the same danger. We do not think it necessary to multiply words, tending to inspire your spirit, for we are of opinion that you possess the same, and have been only waiting to know the sentiments of your fellow friends to *Liberty*. Let us not then coolly and simply suffer any of our rights to be taken from us by any men, especially as our Constitution invests us with full power to oppose any such attempt. Perhaps our fears are groundless; but in case of apparent danger, which undoubtedly is our present case, a wise man will be on his guard; and therefore let such a number of persons as you will please to appoint meet us at Manheim, on the 15th day of January next, in order that we may mutually contrive such measures as may have a tendency to preserve our good and inestimable Constitution and our dear Independence and sweet Liberty. Be active and do not fail to fulfil our request. By order of the whole,

JOHN RODGERS, Colonel.

Hanover, Nov. 28th, 1782.

To the Colonels of the Lancaster county Militia.

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MILITIA MEETING.

Present—Col. Thomas Edwards,
Colonel Ziegler, Colonel Lowry,
Majors Cook, Kelley, Hays and Hare,
Colonel Ross,
Mr. Chambers, Capt. Ewing, Capt. J. Hubley
Colonel Rodgers,
Mr. Clark, Captain Laird,
Colonel Elder.

On motion, Colonel Rodgers was unanimously chosen Chairman, and Captain Joseph Hubley, Secretary.

Colonel Rodgers made a neat and appropriate speech

explaining the objects of the meeting, that a rumor was in circulation calculated to do much injury, "that the President of the state of Pennsylvania was hostile to the independence of America."

On motion this question was put to each battalion:

Is it the opinion of the members present that they approve of the appointment of John Dickinson, Esq. as President of the State of Pennsylvania, or not?

Answer. The members of the Second Battalion are unanimously of opinion that a better choice of a President could not be made.

Colonel Ziegler--Same opinion.

Seventh Battalion—Same.

Eighth Battalion—Same.

Ninth Battalion—We hope the Assembly have made a good choice, and if they have we thank them.

Col. Elder agrees in opinion with the Ninth.

Resolved unanimously, That the People have a right to assemble together for their common good, to instruct our Representatives, and to apply to the Legislature for redress of grievances, by address, petition, or remonstrance.

Resolved unanimously, That in the opinion of the deputies from the different battalions now met, that the complexion of the present House of Assembly is such that we have no reason to doubt that the Independence and Constitution of this State are safe, and that we highly approve of the appointment of his Excellency John Dickinson, Esq. as President.

Resolved unanimously, That we approve of Colonel Rodgers calling this meeting, as it has tended to remove doubts and unjust charges that were in circulation to the disadvantage of his Excellency the President of this State, and two of our Members of Congress, James Wilson and John Montgomery, Esquires; and we conceive such meetings have a tendency to suppress false and malicious reports, and that thereby virtue may meet with its just reward and vice be depicted in in its true deformity. Signed,

JOHN RODGERS, Chairman.

J. Hubley, Secretary.

Manheim, Jan. 15th, 1783.

COMMISSIONERS.

May 2d, 1777. Bartram Galbraith, James Crawford, Adam Ordt, Robert Thompson, Joshua Elder, Christopher Crawford, William Atlee, John Hubley, Alexander Lowry, Curtis Grub, Philip Marsteller, Mathias Slough, and Adam Reigart, are appointed by the War office to supply the army with blankets, &c. for Lancaster county, Pennsylvania.

MINUTES OF THE EXECUTIVE COUNCIL—1700 TO 1712.

[CONTINUED FROM PAGE 78.]

Samuel Carpenter and Thomas Story were sent from this board to the Assembly with the following message from the Governor, viz—"Ffriends, complaint has been made that some persons had not the benefit of the law of New Castle; with respect to the allowances of 10 per cent. I consented to allow the said 10 per cent. according to the said law, but never intended to make myselfe debtor for those deficiencies which were not to be had; and understanding that you look upon that law unequall as giving to some 10 per cent. where there is overplus, and but two per cent. upon surveyed lands, where no more is to be found. I am therefore willing to allow or make good 6 per cent. as well to those who want as to those who doe not want the same upon a resurvey.

This proposal of the Governor was returned unaccepted of by the Assembly.

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At a Council held at Philadelphia, the 28th 8th mo.

The Governor having on the 25th inst. sent his offer in writing to allow and make good to all the possessors of lands in the province and counties 6 acres to the hundred, in all cases, whether they had so much within their lines or not, which offer they had rejected: he thought fit to summon all the Representatives to attend him, desiring they would adjourn themselves to his house—and being come, he very closely expostulated with them for their failure in duty not only to him but to themselves, in making no better use of the opportunity he had given them; told them he had scarce half an hour left to spend with them; desired to know if they had come to any further resolution about the Bill of Property; said he expected they would not leave that point which he had proposed to them last 7th day, viz: the offer of 6 per cent., unsettled, and now, he said, he had required them to adjourn to his house, that they might here proceed without loss of time in their business, advised them to retire into his parlour where they might sit undisturbed so long as to come to a resolution, to which he most earnestly pressed them, and withdrawing accordingly; having spent about an hour in the said parlor they sent the Governor a paper which was read.*

This paper not being signed, it was returned to them to be signed, but they declined it.

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At a Council held at Philadelphia, the 14th 9th mo. 1701.

The Governor acquainted the members of the board, that three of the commissioners named in the Kings Dedimus Potestatem, for administering the oath appointed by act of Parliament for the greater security of the said Plantation Trade, to the Governor of Pennsylvania for the time being, viz: Richard Halliwell, John Moore, Jasper Yeats, were now at his request in town, and that he had conferred with them about administering the said oath to himself in pursuance of the said instrument, upon the Proprietaries commission of deputation, but that they insiste upon having the said instrument first delivered up to them and left in their keeping as properly belonging to them; otherwise they were unwilling to touch with or be concerned in it. Upon which the Governor demanded the opinion of the Council what was fit to be done. And upon a full consideration and debate of the case, it was

Resolved, That because the said Dedimus is to six persons, of which the before mentioned commissioners are only three, or to any five of the Council with the King's collector of his customs in the place, who by virtue thereof have equal power with the committee to administer said oath. And because it is to continue in the government from time to time, to be administered to each Governor that hereafter shall be appointed, for which reason the Council seems to be named as a body politick, that shall have power to administer the said oath in time to come, after the decease or removal of the committee named; and because the said committee are several and private men, it may be uncertain where to search for and difficult to retrieve the said instrument upon their decease or otherwise when there shall be occasion, and by that means the succeeding Governors may be left exposed. It is therefore most requisite and necessary that the said Dedimus be in the custody of the government and thereupon

Ordered, That the same be committed to the Master of the Rolls, to be by him kept with the Records of the Province, to be used hereafter as when occasion shall require.

And upon a motion made that the said 3 commissioners should be sent for by the Governor, and acquainted with the reasons and arguments of the Council and their resolution thereupon, Ordered, That accordingly they should be sent for.

And being come, the Governor informed them of the aforesaid resolution, and laid the aforegoing reasons and arguments before them pressing them that seeing the demands were such as in the opinion of the Council could with no safety to the government be complied with, they would not any further insist upon them, but laying aside all punctilios and resentments, readily dis-

* This paper does not appear among the rough minutes.

charge the duty to which by the King's Dedimus they were called and impowered; and thereupon the said Dedimus was tendered to them for their perusal, but they refused to touch with it unless it were entirely surrendered to them and left in their keeping.

The Governor desired to know whether if the Council should, notwithstanding all the reasons alleged, comply with their demands, however unreasonable, they would then administer the said oath as by the said instrument required; to which J. Moore replied, that when the instrument was delivered up to them, they should consider what was fit for them to do. But the Governor pressing a more direct answer, and they refusing to give any further satisfaction, they departed and the Council adjourned.

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At a Council held at Philadelphia, the 18th 9th mo. 1701.

The bridge at the north end of the town being broken down by the last great rain, and the country much incommoded thereby, in being obstructed in their passage to and from the town. It was laid before the Governor and Council, that some effectual course might be taken to have the same redressed, upon which several persons concerned in the said road, appearing, part urged that the late bridge might be repaired without any alteration, the mound or dike over the swamp having already engaged the country in a great expense, and therefore was not proper to be altered. Others alledged, that the first laying the road that way, was indirect, and the bridge ever proved expensive, being so low down and near the creek's mouth, that it being now destroyed, the road might be laid another way, about half way between the other bridge and the proprietors mill, which would equally accommodate Francfort, and the river side with the other, and much better the greater part of the body of the country, and would by that means cast both roads into one, which would be easier maintained, both by requiring less repairs, and those also would have many more hands to support it. Which being heard and considered, it is ordered that there be seven persons appointed of those that desire a new road, viz:—Gr. Jones, John Goodson, Samuel Richardson, Nicholas Waln, Robert Heath, Daniel Pastorius, and Arnold Cassel;—and seven other persons of those that stand for the old road, viz:—Peter Deal, John Parsons, Jos. Fisher, Benj. Duffield, Robert Adams, Jno. Worral, and Wm. Preston, who shall confer together, view, measure, and consider both the old road and the place proposed for the new one, and duly weighing together the general conveniency and utility, of all the inhabitants of that part of the county, make report to this board thereof, under their hands on 2d day.

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At a Council held at Philadelphia, 29th 9th mo. 1701.

The persons appointed to view the road and bridge at the north end of the town, and to bring in their report this day to this board, accordingly brought in the same severally, each with their reasons, but without any agreement on the whole: whereupon it is ordered, that the matter be deferred till the Governor himself shall come from E. Jersey, and that then, if he thinks fit the Governor and Council may ride out themselves to the place, and personally view it, that they may be the more able to determine for the general advantage of the people.

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At a Council held at Philadelphia, 21st April 1702, *P. M.*

The Governor acquainted the board, that whereas upon his entrance into the Government, he had proposed to three of the Commissioners named in the King's Dedimus Protestatem, under the great seal of England, for administering the oath appointed by the act of Parliament for the better security of the plantation trade to the government of this Province for the time being, that according to the tenor of the said instrument, they would administer it to him upon the Proprietaries commission of deputation, but that they had refused unless they could be gratified in certain demands, which not only then were in the opinion of the Council judged unreasonable, but that since he had procured the opinion of Judge Attwood, appointed by commission from the King, Chief Justice of the government of New York, upon the case, who had declared that as he conceived, the Dedimus ought to be kept in the Secretary's office, or such other place as has been used for preserving public records, which the said Judge had given under his hand, and that for the further satisfaction of some, he had also the opinion of one of the most eminent Council of the Province of Maryland, who concurred with the said Chief Justice in the same.

But that having upon their said refusal, deferred taking the said oath, till the time limited in the act of Parliament and Dedimus Potestatem, was near expiring. He was now under a necessity of taking it by such other means as should be found agreeable to the tenour of the said instrument, and therefore desired to take it at the hands of such of the Council, as in their consciences were free to administer an oath.

And accordingly John Guest, Capt. Finney, and John Finney, together with John Bewly, Collector of the King's customs for the Port of Philadelphia, administered said oath in the presence of the other members of Council who subscribed as witnesses to a certificate indorsed on the said instrument in the following words, viz:

In pursuance, and by virtue of the within instrument, Andrew Hamilton Esq. Deputed Governor of the Province of Pennsylvania, and counties annexed, by virtue of a commission from the Hon. Wm. Penn, Proprietary and Governor of the said Province, &c. at a Council held at Philadelphia, the 21st day of April 1702, took the within directed oath at the hands of John Guest, Samuel Finney, and John Finney, Esquires, members of Council for the said Province and Territories, and John Bewly, Esq. Collector of his majesty's customs, for the Port of Philadelphia, in the presence of the other members of the said Council hereunto subscribing.

Samuel Carpenter,	Samuel Finney,
William Clark,	John Finney,
Caleb Pusey,	John Bewly, Collector.
John Guest,	

AN ADDRESS

To the Agricultural Society of Buck's County, (Pa.) delivered at their Annual Meeting, on the 12th November, 1827 by S. D. INGHAM.

There is no pursuit that has yet engaged the attention of man, which offers such an interesting variety of useful and valuable matter for the contemplation of the economist, the moralist, the philanthropist, or the philosopher, as that which constitutes the object of this association.

The cultivation of the earth, and the improvement of its productions, by increasing their quantity and value, and adapting them to the purposes of animal food, seem to have been among the first considerations which presentedto the mind of the omniscient Creator,after he had constituted human existence on our globe. And without detracting from the character of any other occupation which has been produced by the wants of civilized society; it may with great propriety be asserted that agriculture stands foremost in the order of all human arts; that it is the favored handmaid of the Deity in perfecting through human instrumentality the beautiful works of his will; and that while it subdues and adorns the inanimate world, giving the means of subsistence to animated nature, increasing and multiplying its beings in rapid progression; it is the grand agent employed by the same Almighty hand to promote the civilization of the human family. Whatever superiority civilized man, who indulges in all the comforts of life upon the product of a single acre, can boast over the untutored and ferocious savage who roams upon 10,000 acres for a

scanty subsistence; this superiority and all its train of blessings, we owe under Providence, mainly to our skill in cultivating the earth.

After God had created man he blessed him and commanded him to "be fruitful and multiply and replenish the earth *and subdue it.*" In this brief and emphatic mandate we find the elementary law which fixes the great plan of human affairs in our world. The constitutional desire to perpetuate our existence and preserve life, accompanied by the necessity for nourishment to sustain it, constitute the grand causes, beyond which reason cannot look, that give action to the whole operations of our physical existence.

Man by nature is prone to indolence and can only be stimulated to action by the love of pleasure or some unyielding necessity; but it is a law of his creation that these stimulants shall attend him—he cannot subsist without food, and is therefore compelled to toil for it, and the multiplication of his race causes a proportionate necessity for increasing the means of subsistence, and consequently for increased exertion to procure them—thus his passions and his appetites are made the instruments of his own improvement, and propel him forward from indolence, vice and the grovelling habits of the semi-brutal savage, to the enjoyment of the comforts, luxuries and elegant accomplishments of civilized life; and he whose whole mind would have been absorbed in the love of ease, love of pleasure and selfish love of existence, is thus changed into a being devoted to industry, social affection and love of justice.

I will not further occupy your time in marking the progress of the primary laws of our nature, and their agency in the work of civilization; let it suffice to observe that they operate through the regular succession of causes and effects, and are directed and controlled, by an all-wise hand to the great end and object of our creation, the intellectual and moral perfection of human existence.

It has already been observed, that the art of agricultural economy is among the primary agents in this great work, and it may be added, that it is not only a necessary auxiliary in giving the first impulse, but must be a constant attendant and support of it, in every stage of its progress.

But I must proceed to the more immediate consideration of the topics for the investigation of which the appointment of an annual address was designed. Permit me, however, to observe, that the various and care-engrossing pursuits in which it has been my lot to be engaged from early life, as most of you know, have precluded that minuteness of observation and accuracy of experiment which would be indispensible to enable me to offer any thing of much value, *from that source*, by way of instruction to a society composed of some of the best practical farmers in the United States; but being sensible of the kind indulgence which you will be disposed to extend to every well meant endeavour to make the smallest addition to the general stock of knowledge, I have been encouraged to undertake the duty you have been pleased to assign me.

A distinguished writer, whose works are imperishable, has immortalized, *as a great public benefactor*, whoever "*shall make two blades of grass grow where but one grew before,*" and if to this simple idea, we add, that of *improving the quality of the plant*, we have presented in a small compass a view of the whole end and design of agricultural improvement. But however simple this purpose may seem to be, the means for its effectuation are so diversified, and embrace so vast a scope of the operations of human ingenuity, and the point of perfection is so far beyond our reach, that we may contemplate the progress of agricultural improvement, as we do the approach to the termination of boundless space or the conclusion of endless time; *it certainly has no limit*, and yet every development of an useful fact brings a delightful reward for our efforts, that cheers us on the way, and more than reconciles us to the pursuit of our unapproachable object, by the assurance that our labor cannot be lost, as posterity must begin where we have ended. Emerging from the hunter state, we commence our work of improvement by clearing away the native forests and emplying the plough to turn up the soil and expose it to the genial action of light and air and heat, and at the same time turning down the upper surface with its load of undecomposed vegetable matter, to putrefy and dissolve for the support of another growth.

It might have been expected that science would ere this have reduced to certainty many facts in relation to the nourishment of plants, which we now only know as general speculative truths—but this knowledge is yet in its infancy; we learn, indeed, as far as any fact can be known from a mass of strong and uncontradicted evidence, that nature makes no new creations now—nor does she suffer any of her created matter to be annihilated; she may, however, be said to delight in changes, & to be constantly practising in the art of transformation of bodies. Those phenomena which we are accustomed to regard as appearances of destruction and annihilation, are only the regular operations of her fixed laws, or the sports and freaks of her subordinate agents.

Man cannot change these laws; although he may by special combinations made in obedience to them, increase or diminish their effective power—this is all we can presume to do—so imperfect is our knowledge on this subject, that it is not known with any certainty, what constitutes the proper combination of matter for the best pabulum of any one plant in the whole vegetable kingdom. Experience and observation have indeed taught us that their habits are as various among the different genera and species, as are those of the animal race; some require a temperate climate, and a fertile soil; others prefer the torrid, others the frigid zone, and thrive on a burning sand, or under beds of snow; some grow in the bottom of rivers, lakes, and even of the ocean, while others float on their surface, seemingly independent of the earth, the supposed parent of all vegetation; and there are a few vegetable as well as animal parasites, which continue to subsist upon the substance of others; these varieties of habits in plants prove the difficulty of determining the proper combination of elements best adapted to their support; but the difficulty or even impossibility of attaining all we desire to know, is no reason for relaxing our pursuit after useful knowledge. Science has given us many facts, which when thoroughly tested by the light of experience, may become of great use in settling principles, and establishing theories, in agricultural economy, which may tend to narrow the field for mere speculation; and relieve the practical cultivator of the earth, from the labor and expense of many unnecessary experiments.

The plainest dictates of reason would suggest, that when we are about to cultivate a plant, we should first ascertain its particular habits and especially what constitutes its favorite aliment; & wherever we begin the study of agriculture or horticulture, either practically or scientifically, this must be one of the chief objects of our researches—in pursuance of this idea, I have selected chiefly from the works of the German chemists a few extracts shewing the results of the chemical analysis of the seeds of various plants, and other practical experiments in relation to them. By these experiments it was ascertained that the following earths and metallic oxydes were found in 32 ounces of—

	Wheat.	*Rye.*	*Barley.*	*Oats.*	*Rye st.*
Silica	13.2 grs.	15.6	66.7	144.2	15.2
Carbonate of Lime	12.6 '	13.4	24.8	33.75	46.2
Do. of Magnesia	13.4 '	14.2	25.3	33.9	28.2
Alumina	0.6 '	1.4	4.2	4.5	3.2
Ox. of Manganese	5.0 '	3.2	6.7	6.95	6.8
Oxyde of Iron	2.5 '	0.9	3.8	4.5	2.4
	47.3	48.7	131.5	227.8	238.8

It should here be observed that a great variety of other ingredients have been detected in these vegeta-

bles, as well as in others. It is also known that the absorbent vessels of plants receive substances, which are not only unnecessary as food, but actually destructive of vegetable life, from which it may be inferred that only a part of the ingredients found in them are beneficial to their growth; the best rule, perhaps, to guide our researches in ascertaining the proper nourishment of plants, would be to regard those substances which are peculiar to all plants, and all soils, as constituting either their primary nourishment, or the most important agents in preparing it for use. In pursuance of this idea I would observe that *all soils are found by chemical analysis to contain the following earths, viz: silica, lime, alumina, and magnesia*; and it is remarkable that *these are the only earths yet found in plants:* and if to these we add the other simple substances of which plants are chiefly composed, viz. carbon, hydrogen, oxygen, and azote, we may presume to have included in our list, those ingredients which constitute as well the primary food of vegetables as the chief agents employed by nature in its preparation. This is further proved by the analysis of the matter that composes vegetable seed already noticed, because it is evident that this matter supplies the food of the embryo plant in the process of germination, which being prepared by nature herself, is no doubt the most perfect ingredient for that use. If any further evidence were necessary to show that the substances above mentioned are the great instruments of nature, in the process of vegetation, we have it in the universally established fact, that decomposed animal and vegetable substances (which are similar in their constituent parts,) are the most agreeable nutriment we can offer to the growing plant. That the earth is employed as a menstrum for preparing and preserving the food of plants is very certain, but you will be surprised to hear that it has even been doubted by some very learned experimentalists whether the earth was at all essential in this great work of vegetation, "Van Helmont," says Dr. Thompson, "planted a willow, which weighed five pounds, in an earthen vessel filled with 200 lbs. of soil, previously dried in an oven, and moistened with rain water, this vessel he sunk into the earth, and he watered his willow sometimes with rain, and sometimes distilled water; after five years it weighd 169¼ lbs and the earth in which it was planted when again dried, was found to have lost but two ounces of its original weight."

Schrœder, of Berlin, planted seeds in the flour of sulphur, also in the oxydes of zinc and antimony, moistened them with distilled water, and they came to maturity, and what is very remarkable, plants raised in this manner were found to contain the same ingredients with those raised from soil.

These experiments seem to prove either that water contained all the earths found in the plants, or that earths were formed in the process of vegetation. It was ascertained, however, by *Saussure*, that plants raised in soil yielded more than three times the quantity of fixed matter, that was obtained from those fed on distilled water; and it was further ascertained that plants raised without earth, gradually deteriorated and finally produced no seed; which must remove the doubt as to the necessity for earth in supporting the vegetable kingdom. It has been remarked by Dr. Thompson, that "soil consists of two parts, namely, pure earths which constitute its basis; and the remains of animal and vegetable substances applied as manure;" but it must be obvious that the vessels within the fibrous roots of plants through which their nourishment is mainly received, are too minute to take up substances of any kind, not in a state of solution, hence the necessity for active chemical agents to decompose and dissolve whatever ingredients are to be imbibed. There are no doubt many of these whose functions are but little understood; but all our experience added to the facts already noticed, proves that water is one of the most efficient and essential of these solvents. It has been observed that "the carbonaceous matter in all active manures, is in such a state of combination that it is soluble in water: all the salts which we can suppose to make a part of the food of plants are more or less soluble in water. This is the case also with lime whether it be pure or in a state of a salt, and magnesia and alumina may be rendered so by means of carbonic acid gas." Bergman and others have shewn that even silica may be dissolved in *water*. Air is also essential to vegetation; it supplies oxygen, without which seeds will not germinate, and also carbonaceous matter. Heat is also indispensable to the support of vegetation; and is a powerful agent in the decomposition and solution of fixed matter. The earth no doubt operates both as a menstruum for the extraction of alimentary matter from substances in its presence, and as a laboratory and reservoir for their preparation and preservation, and also as a medium to equalize the action of water, air and heat, and other subordinate agents employed in preparing and distributing the vegetable aliments. As a further proof of the fact that silica, lime, and alumina are among the most essential ingredients in vegetation, it may be observed that their mechanical organization is peculiarly adapted to regulating the supply of water, as the dryness or moisture of a soil will very much depend upon the proportion of these earths contained in it; those which contain the greatest quantity of silica (sand) are least retentive of moisture; and those which contain most alumina (clay) retain it the longest; lime is an intermediate agent between these opposite capacities; it increases the tenacity of a sandy soil, renders it more retentive of moisture, while it destroys the tenacity of a clayey soil, and diminishes its wetness: these facts suggest a very important function of these simple earths, which are found in all soils and in all plants. But let us consider whether any sufficient data are furnished by known facts; and the experiments I have noticed, to settle any principles or establish theories which can assist us in the useful branches of our pursuit; for unless experiments and speculations lead to such results, they degenerate into mere matters of amusement for idle curiosity. I indulge some hope however that those I have brought into view will not be found entirely of this character, they have been considered with some care, and subjected to the test of such light of observation and experience as I could command. It may I think be affirmed that moisture, air and heat are necessary to the decomposition of vegetable substances, and that the substance of seeds prepared by these agents constitutes the natural nourishment of the young germ of plants.

2. That the same process by which the food of the young germ is prepared takes place in the preparation of the food of the growing plant.

3. That silica, lime, alumina and magnesia being found in all soils and in all plants, a portion of these earths must be dissolved by other agents and absorbed through the vessels of the fibrous roots of vegetables; and hence a proper mixture of them in the soil, is highly beneficial if not essential to vegetation.

4. That these earths are not only important in the foregoing particular, but they equalize the supply of moisture and perhaps of heat, for the support of the plant, which might be injured by the presence of too much or too little of these agents.

5. That the proportions of silica, lime and alumina will determine the capacity of the earth for retaining and equalizing *heat and moisture*, the chief agents in the preparation of the food of plants.

6. That as the earth receives and retains the dissolved ingredients (gasses) which nourish plants, it may be inferred that all undecomposed substances intended for manure, will be most economically used by first mixing them with the earth, which will thereby receive the dissolved matter and prevent its escape into the atmosphere.

7. That a compact clay soil which resists the action of heat and moisture, and the efforts of the fibrous roots in quest of food, will be corrected in both these respects by a mixture of lime and sand.

8. That a sandy soil which has not sufficient tenacity to retain moisture may be improved by the addition of lime and clay.

9. That all soils abounding in acid (especially those containing undecomposed vegetable matter) may be rendered fertile by the free use of lime alone.

10. That in addition to the foregoing properties of lime, it attracts by chemical affinity a portion of carbonic acid gas from the atmosphere, and if silica be, as Sir H. Davy supposes, an acid soluble in potassium, it is not improbable that nature by her obscure operations in the process of vegegation, may through the agency of lime dissolve a portion of that earth and prepare it for vegetable nourishment; if so it will account for the very remarkable effect of lime upon sandy soils.

11. That as decomposition of vegetable matter in the earth is slowly effected, and as the food of plants must be in a state of solution which succeeds decomposition, *that* soil in these operations are most perfectly performed is best adapted to nourish the tender plant which has just emerged from the parent seed; and hence all soils into which seeds are planted, are best adapted to their growth, when most perfectly pulverised, in which state they give out most freely the gasses which are absorbed by the fibrous roots.

12. These crops which arrive at maturity in the shortest time, require the most perfect preparation of the soil.

13. Those crops which are the longest time in attaining maturity, require a portion of undecomposed manure to sustain their latter growth and the ripening of their seed.

A more minute examination of this subject will suggest many additional considerations worthy of notice, but I have endeavoured to confine myself to such as would bear the test of close practical observation, and such I believe are those I have suggested.

An inquiry into the habits and dispositions of esculent plants, as to climate, soil and constitution, would be an interesting subject for investigation, in an agricultural community; in this persuasion I shall notice a very few particulars by way of introducing it to your attention, in the hope that some one, having more leisure and better qualified for the task, will pursue it further. It is a branch of our art which exclusively belongs to the practical farmer. There is perhaps no vegetable which endures so many climates as wheat; it is found I believe in every parallel of latitude from the equator to the arctic circle; it is by no means very sensibly affected by heat or cold, by drought or excessive moisture, and yet in some respects it is one of the most delicate and difficult of culture; there are many soils in which it refuses to grow; it requires great care in the tillage of the soil; it prefers and demands a copious supply of nutritious food; and is withal so tenacious of the entire enjoyment of the food provided, that it languishes in the presence of every other plant which may intrude within its bounds. But notwithstanding all these properties, there are some facts to prove that it does not very materially exhaust the soil, all the grasses sown among wheat succeed I believe better than upon any other crop. Rye is scarcely less universally acclimated than wheat, but being a less favoured grain, does not attract so much notice; it grows well upon an indifferent soil, but refusing almost every other plant the least share of its support, exhibits the appearance of an hungry, all-devouring gormandizer; and yet tolerable crops of rye have been grown on comparatively sterile sands that will not produce grass of any kind, and this too for every 2d or 3d year for a century, without a particle of any kind of manure! Quere, Is it not supported by silica dissolved with water,* and its vessels adapted to absorb food less perfectly dissolved than most of the plants?

Indian corn grows from about 43° to the equator; it prefers a climate between 30° and 40°, requires but a light soil, *if* the climate be warm, but if not suited in the climate, it demands a rich mould throughly prepared, and constant attention to keep out intruders of every description; it no doubt exhausts the soil considerably, but not in proportion to other grain, when compared with the quantity of nourishment it affords. Of this grain it may be observed, that it is preferable as a food for man or beast to the barley, pulse or turnip, or any of the roots so much famed in European agriculture; and withal yields a much greater quantity of nutriment from the same ground and with the same labour than any of those vegetables. Potatoes, which are now the staff of life for the poor of a great part of the old world, as well as an article of luxury on the tables of the most wealthy, prefer a cool, moist climate, and a soil that resists the approach of both light and heat; the summit level regions of the middle and northern states produce them in the greatest perfection, probably owing to the cool damp atmosphere which is always found in the region of the sources of rivers descending in different directions; this excellent vegetable does not rapidly deteriorate in our climate, and may with a moderate care in the selection of seedlings, be produced in great perfection. The best crops are raised on a northern declivity, in a rich soil without manure, or if it be manured it is better to be done in the fall preceding otherwise the stimulus of the manure, such as is generally used (without decomposition) will produce many young roots late in the season which injure the growth and quality of the early setting.

Turnips require a much colder climate than potatoes; the month of October in Pennsylvania, with frequent rains, is the proper temperature for them, but our cool season is too short to make a profitable growth of this crop, and we listen in vain to the extravagant accounts of Englishmen as to the value of their turnips. One acre of Indian corn is worth an average of five of turnips in this country, for fattening cattle, sheep or swine, and I have no doubt worth more than two acres of the best turnips of old England for the same purpose. But I must close this course of remarks and pass on.

There is another and a distinct branch of agricultural economy which deserves our notice, viz. the improvement of the quality of the products of the earth, but I must of necessity be very brief upon so expansive a subject.

It will have been observed by many that while nature seems to take delight in the increase of her products, she appears to regard with some jealousy every innovation tending to change their quality or character, or at least yields with some reluctance to the importunate efforts of her favorite creature man, in thus seeking to entrench upon the prerogatives of his creator. She thus informs us that the simplest preparations of food are the best for us, and that while she fixes no limits as to the quantity to be allowed, she admonishes us that as long as our appetites are not unnaturally stimulated by the *quality*, we are in no danger from *satiety*. But man is a slave to his appetites, and although the good order of society and religious obligation require that many of these should be restrained, yet none of our civil or moral instructors have had the courage to denounce the art of producing and preparing food for an artificial appetite, as an *offence* against the moral law. I may therefore without fear of disturbing public opinion suggest a few remarks on this topic:

Some vegetables are improved to a limited extent by grafting, but as nature forbids the seeds of plants or trees thus produced to produce their qualities, we can only continue these by repetition of the orginal precess, *no new family being formed.* Many plants might, however, no doubt be improved by attending to a law of their nature, in commingling the fecundating farina of their flowers, by which their fruits are made to partake of the common qualities of several parents. The art of crossing and improving animals so as to advance their best properties is so well understood that it is remark-

* 32 ounces of rye seeds contained 15.6 grains of silica, and the same quantity of rye straw 15.2 grains.

able the same practice has not been introduced for a similar improvement of those plants whose nature seems to invite such experiments. The most common practice for the improvement of vegetables, is to select the best for seed, and as in most species, like begets its like, a certain advantage, however small, may always be expected from this experiment; but its progress is rather too slow for the natural impatience of man; who by a strange contradiction of reason, generally postpones tothe latest period the commencement of that work which requires the longest time for its completion.

There can be no doubt but a careful and judicious selection of the best seeds, from the best plants, *having reference to their habits*, would effect a continuous progression of improvement, in every species of the vegetable kingdom; much of this has been done, but it is a work that never can be finished.

When we recollect the high authority for the fact that "all flesh is grass," it will be useless by a course of reasoning to show the connection between the animal and vegetable creation, and that the improvement of useful animals constitutes a very important branch of agricultural economy.

This has however not been neglected. That noble animal the horse, justly the most admired of the brute creation, has engrossed much of the care of man throughout every part of the habitable globe; the various races found in every region from the torrid to the frigid zone have been sought, for the purpose of developing, combining and perpetuating properties that could enhance his usefulness, he has consequently attained a high degree of perfection; but nature is always parsimonious of her most excellent gifts, and it requires but little less attention and skill to preserve the horse at his present point of excellence than it has done to attain it; it has even been apprehended by some that the stock of horses in Pennsylvania has actually deteriorated, but it is probable that this is only *in appearance*, arising from the more rapid progress in some of the neighbouring states; we have not consented to employ as they have done that powerful incentive to action, the love of pleasure and of sports; to stimulate our public spirit and love of money in the improvement of our horses.

Much progress has been made in the improvement of black cattle. The beautifully marbled beef of cattle raised in the northern states, now chiefly in New York, and fatted upon the rich pastures of the Delaware, has long been famous for its excellence, even among the admirers of the famous roast beef of Old England.—These are supposed to be a mixture of the Devonshire cattle, long since imported into N. England, and from thence taken westward with the migrations from that region.

Our native cows are also an excellent stock; more attention has probably been paid to their improvement than to that of any other animal not excepting our horses. Every farmer's wife within an hundrd miles of Philadelphia may be said to have one or more excellent cows, the offspring of the best of a favourite stock which had been improving in the family for an age.—This practice could not fail in a series of years to make a valuable race, and such a race we have; to these have lately been added some imported breeds. The Alderney, distinguished for the richness of their milk, but rather ill-favoured as to form, have had to contend with the prejudices common to whatever does not please the eye, a judicious cross of these with the best native breeds promises an essential improvement in our dairy cattle.

It has been said of the Alderney cows by a highly intelligent practical farmer, (Mr. Pickering,) that they will yield more butter, in proportion to their size and the quantity of food consumed, than any other race, and it is worthy of remark, that there is some delusion in estimating the value of milk cattle by their size; product and cost of keeping are the essential elements which determine this value, and it is a general law of nature that animals should require food in proportion to their size, hence a large carcase is to be supported in a milch cow throughout her term of usefulness for the dairy, for no other advantage than that of having a few pounds more beef when she is slaughtered.

The Durham short-horns, latterly introduced, are also highly esteemed. The symmetry of their form, added to their disposition to fatten, recommend them greatly to the judgment, which decides upon external appearances, and therefore we may expect them to gain in public estimation, not less by the prejudice of fancy, than the Alderneys have lost by the same cause; we have as yet but little experience in the United States as to the quality of their beef, or their general character for the dairy, they are known to be highly esteemed for the former in England, and the presumptions are much in their favor, as a very valuable stock for those sections where cattle can be profitably raised for the shambles: but it may well be doubted whether those cattle which have a peculiar predisposition to fatten, are the best stock to propagate for the dairy; it is not to be believed that the digestive organs can convert aliment into flesh without a comparative diminution of the supply for the udder; or in other words, convert the same food into flesh and milk, and produce the same quantity of each that would have been produced of either if the aliment had been converted into but one. Every cow therefore which inclines to fatten, and yields a large supply of butter, must have a capacity for digesting, and actually consume a corresponding quantity of food; but it is not in nature to unite in one animal two opposite qualities to excess; and further experience will no doubt confirm the general opinion, that all cows naturally predisposed to fatten, which yield an unusual quantity of butter, will only do so, while fresh, under the stimulous of high feeding, and when in full flesh; a forced condition of existence, not to be long maintained; and that their milk will fall away much sooner than that of those which have less pretension to this double property.—The difficulty of digesting food enough to maintain high flesh for any considerable time, and an exuberant supply for the churn, causes either the flesh or the milk to fail, according to the predisposition of the animal, or more properly speaking the conformation of the digestive organs. If therefore any race of cattle shall ever be found, to unite all the best properties for fatting and for milking, which is not to be expected, they must consume a quantity of food in proportion to this demand, and hence there will be little if any advantage in propagating such a stock. But there is another objection to such an undertaking; it is well known that improvement in breeding stock is slow in proportion to the number of qualities which it may be necessary to acquire and maintain;* and when any qualities to be attained, are essentially incompatible. the obstacles to advancing, if not insuperable are greatly increased; but as there is no motive of pecuniary interest to justify this tardy and difficult contest with nature, it is loss of time and labor to enter upon it. Our pastures within the reach of the city markets are more profitably employed in supporting stock for the dairy, while those at a distance have a decided advantage in raising cattle for beef; there is no inconvenience, therefore, but an advantage in having the qualities referred to, kept separate and distinct, in which the attention of breeders can be directed to the improvement of a single quality, instead of struggling against nature to unite two incompatible ones in the same animal.

Of sheep we have now a foundation for the best stock

*Breeders of the race-horse can verify this remark; they require *bottom*, speed and strength to be united in the same animal; these qualities are sometimes combined by the sports of nature; but so to amalgamate them in a stock that the progeny may not partake of some material defects of their remote ancestors is most difficult to accomplish.

that the world affords; the long wooled race are raised in many places, but not so generally as they deserve to be; the Dishley are esteemed the best of this kind, and richly reward those who give them good pasture in summer and grain in the winter. Of the fine woolled race we have the merino, now in great perfection.—This animal has been deemed in Europe worthy to be used not only as a token of royal friendship, but has more than once been made a subject of grave negociation when potentates were adjusting momentous controversies of governments. Commercial enterprise has furnished us a supply without resort to these means, & we have now not only the Spanish merino in great numbers, much improved by our care, but the highly improved stock of Saxony more than doubling the value of the original Spaniard, the same remark applies to the improvement of the Merino as to all other animals, the quality and uniformity of the fleece should be the sole object in the first instance, & never sacrificed to any other. The general antipathy to mutton as an article of food in our country, is the only scrious obstacle to a very extensive propagation of the various kinds of sheep, which would otherwise soon enable the United States to supply wool, and especially fine wool cheaper than any other country. The Merino is the best mutton I have ever tasted, and a more general supply of *good mutton* will no doubt in time overcome this dislike; and if the politicians would let our flocks alone they will in due time work their way into permanent profit and favor, not to be disturbed by the fluctuations of false excitement or reacting depression.

Our swine exhibit the marks of care and skill in breeding; I have no where met with a more thrifty or profitable race than is to be found in this and the neighboring counties, but we are not to suppose them incapable of further improvement: to this there is no limit.

In conclusion, permit me to remark that while we are harmoniously, and I trust successfully engaged, full of emulation, untainted with envy, uniting our endeavours in advancing the intervsts of agriculture, we are not only developing additional resources for the comfort and happiness of our race, in future ages: but, by elevating the character and enlarging the circle of our professional community, we are preparing the means for the extension and perpetuation of the blessings of civil liberty.—Agricultural communities are the only safe reliance as depositories for that virtue and independence of mind which *unawed by power, unseduced by venal allurements*, and untainted by faction, can preserve the just equilibrium necessary to support order, protect liberty, and maintain and perpetuate the moral energies of free institutions among mankind.

COUNT ZINZENDORF.

Soon after the arrival of the Delawares at Wyoming, and during (the summer of the year 1742,) a distinguished foreigner, Count Zinzendorf, of Saxony, arrived in the valley on a religious mission to the Indians. This nobleman is believed to have been the first white person that ever visited Wyoming. He was the Revivor of the ancient Church of the United Brethren, and had given protection in his dominions to the persecuted Protestants who had emigrated from Moravia, thence taking the name of *Moravians*, and who two years before had made the first settlement in Pennsylvania.

Upon his arrival in America, Count Zinzendorf manifested a great anxiety to have the Gospel preached to the Indians; and although he had heard much of the ferocity of the Shawanese, formed a resolution to visit them. With this view he repaired to *Tulpehocken* the residence of Conrad Weiser, a celebrated Indian interpreter, and Indian agent for the Government, whom he wished to engage in the cause and to accompany him to the Shawanese Town. Weiser was too much occupied in business to go immediately to Wyoming, but he furnished the Count with letters to a Missionary of the name of Mack, and the latter, accompanied by his wife who could speak the Indian language, proceeded immediately with Zinzendorf on the projected mission.

The Shawanese appeared to be alarmed on the arrival of the strangers who pitched their tents on the banks of the River a little below the Town, and a Council of the Chiefs having assembled, the declared purpose of Zinzendorf was deliberately considered. To these unlettered children of the wilderness it appeared altogether improbable that a stranger should brave the dangers of a boisterous ocean three thousand miles broad, for the sole purpose of instructing them in the means of obtaining happiness *after death*, and that too without requiring any compensation for his trouble and expense; and as they had observed the anxiety of the white people to purchase lands of the Indians, they naturally concluded that the real object of Zinzendorf was either to procure from them the lands at Wyoming for his own uses, to search for hidden treasures, or to examine the country with a view to future conquest. It was accordingly resolved to assassinate him, and to do it privately lest the knowledge of the transaction should produce a war with the English who were settling the country below the mountains.

Zinzendorf was alone in his tent, seated upon a bundle of dry weeds which composed his bed, and engaged in writing, when the assassins approached to execute their bloody commission. It was night, and the cool air of September had rendered a small fire necessary to his comfort and convenience. A curtain formed of a blanket and hung upon pins was the only guard to the entrance of his tent. The heat of his small fire had aroused a large Rattle-snake which lay in the weeds not far from it; and the reptile to enjoy it more effectually crawled slowly into the tent and passed over one of his legs undiscovered. Without, all was still and quiet except the gentle murmur of the river at the rapids about a mile below. At this moment the Indians softly approached the door of his tent, and slightly removing the curtain, contemplated the venerable man too deeply engaged in the subject of his thoughts to notice either their approach, or the snake which lay extended before him. At a sight like this even the heart of the savage shrunk from the idea of committing so horrid an act, and quitting the spot they hastily returned to the Town and informed their companions that the *Great Spirit* protected the white man, for they had found him with no door but a blanket, and had seen a large Rattle-snake crawl over his legs without attempting to injure him.* This circumstance, together with the arrival soon afterwards of Conrad Weiser, procured Zinzendorf the friendship and confidence of the Indians, and probably contributed essentially towards inducing many of them at a subsequent period to embrace the Christian Religion. The Count having spent twenty days at Wyoming, returned to Bethlehem, a Town then building by his christian brethren on the north bank of the Lehigh about eleven miles from its junction with the Delaware.—*Chapman's Wyoming.*

Communicated.

SOME ACCOUNT OF

ARMAND TUFIN, MARQUIS OF LA ROUERIE.

I could not send you a more interesting biography, and I trust it will be received as such, and read with pleasure. As the Col. was well known in Pennsylvania during the Revolution, the latter period of his life will be perused with much curiosity.

The Marquis of La Rouerie, was a Breton, and entered when young into the regiment of French guards. The warmth of his passion, and an ardent imagination,

* This circumstance is not published in the Count's memoirs, lest, as he states, the brethren should think the conversion of a part of the Shawanese was attributable to their superstition. The author received the narrative from a companion of Zinzendorf who afterwards accompanied him to Wyoming.

heightened by the seductive eloquence of the writings of Rousseau, made him find a Julia, in the person of a beautiful actress. In the height of enthusiasm, he offered her marriage. His family and friends interposed. He escaped from them, and shut himself up in the Monastery of La Trappe; he was searched for, found and brought back to Paris. To overpower love, they opposed the passion of glory in arms.

The rebellion of the Colonies had broken out, and the name of Washington, was already famous, when the Marquis left his native land to serve under the hero of the West. He sailed from Nantes, in an American Schooner, commanded by the gallant Anderson, sent out with despatches by Dr. Franklin, to Congress, then in Philadelphia. Arriving at the mouth of the Delaware, Anderson found himself surrounded by three English ships of war. If captured, he knew he would die a rebel death. He formed the desperate resolution of blowing up the vessel, he communicated his intention in confidence to the Marquis, with a request, that *he* would deliver the despatches in safety.

Armand jumped into a boat with them, and endeavored to pass through the British vessels. The boat was struck with a shot and went down, but the Col. saved himself by swimming, and reached the land as the Schooner blew up. He travelled one hundred miles on foot to Philadelphia, and delivered the important despatches to Congress, and received the appointment of Colonel. In America he conducted with much ability a partizan warfare, consistent with his romantic and enterprising courage, known by the name of Col. Armand and distinguished on many accounts, for his courage and gallantry. When the peace took place, he returned to Britainy, cured of his youthful passion, and married a young lady of the vicinty. In 1788, the Minister of war gave him the appointment of a Colonel of chasseurs. The archbishop of Sens, began to carry into effect a scheme of suppressing Parliaments. The Marquis remembered he had been a gentleman before he had been a soldier, and that he was a Frenchman, because he was a Breton. He threw up his commission, and appeared among his countrymen. He attended the assembly at Vannes, where the twelve Deputies were chosen; he was one of the twelve; he was afterwards confined in the Bastile, with his colleagues, but was allowed to see his mother. The good lady found her son, as at a hunting party, quite gay. On his triumphant return to Britainy, he proposed an oath, which bound the Nobility to permit no innovation of the rights and privileges of the Province. He was the chief means of confirming the Nobility in their resistance to the Revolutionists. The Province remained a passive spectator of the convulsions which agitated Paris. The Marquis remained on his estate until 1791. Possessing a native genius, having experience, and a thorough knowledge of the world, with an affability the most pleasing, and manners the most insinuating, having all those requisites which form a man for a leader of a party; he arranged a plan to serve the cause of his King, becoming a gentleman. He organized among the honest, frank, and courageous people, 40,000 confederates; many of the inhabitants of Normandy, Maine, and Anjou, joined themselves to Britainy. The Marquis gave what means he possessed, and ladies of distinction, contributed to the enterprize. No secret was ever better kept than by this confederacy.

But De La Rouerie, with all his care could not avoid suspicion, he had to sustain a siege in his castle against the Orleans dragoons. He ably defended the mansion. Among the company at his castle, was the beautiful Mœlien Le Trapjolif; in addition to personal charms she possessed a superior mind, a solid education, and the courage of a heroine. She took her station in the assault, and fired with destruction at the dragoons. But unfortunately the castle was a wooden building and could not be defended; the Marquis and his friends, retreated through the garden, and escaped into the forest.

The State's General had degenerated into a National assembly; De La Rouerie, could not escape their suspicion, and a price was set upon his head.

There existed in Britainy; an association called "*Fendeurs,*" composed of Wood-men, or Wood-cutters, also Sportsmen and many Noblemen, did not think it a disgrace to be a *brother Fendeur*. If a gentleman was attacked by banditti, if he had lost his way, if he was benighted, all he had to do, was to strike a tree with a certain number of blows, which would designate him to be a *Fendeur*, and bring to the wanderer a guide. On hearing the blows, men, women, and children, would issue from the cabins, bearing lighted branches of fir, to illuminate the path. He who could give the best supper, was to receive him as a guest. In the morning, the Fendeurs with their guns on their shoulders, would see their visitor home.

The Marquis was a Fendeur; to fly from Robespierre, and Carnot he dwelt in the forest? He took ill and was removed at the request of a Physician, to the house of M. De La Guyomerais, who lived retired with his wife, and two daughters, at his country seat. He was a stranger to De La Rouerie. The brave and unfortunate Armand De La Rouerie, fell a victim to the malignancy of the fever.

De La Guyomerais, his wife and daughters were seized together with the body. Among the papers of the Marquis, was found a little note from Madame Mœlien, it was thought sufficient evidence of guilt, that she had dared to write to him. She was thrown into prison at Rennes; and from thence was sent to Paris with the family of Guyomerais, where all five perished on the scaffold by the Guillotine. The young, lovely, and interesting Mœlien of Britainy, displayed a courage far beyond her sex. She received the last consolation that religion can give from a friendly Priest; and the heroine young creature, cried out from the scaffold, vive La Rouerie, then submitted her neck to the blow.

PROCEEDINGS OF COUNCILS.

Thursday evening, August 12th.

The following communication was referred to the Watering Committee.

The subscriber intending forthwith to erect a large building for carrying on the business of spinning and weaving of cotton in Spruce street, between Beach and Willow streets, is desirous of obtaining an adequate supply of water for his steam engine which is to propel the engine of the factory. And he respectfully asks permission to draw that supply through iron pipes from the river Schuylkill along Spruce street, at such a distance from the curb stones and at such a depth from the surface of the ground as the honourable council or their agents may direct.

He pledges himself to replace the pavement that may be taken up for the purpose, without delay, and to pay for any other cost or damage that may arise."

WM. JAMES.

The following communication was laid on the table.

"The Directors of the Poor Tax, report, that they have laid the Poor Tax for 1830 at 20 cents in every hundred dollars, viz.

On $34,967,697 at 20 cents, is	$69,996 00
Dog Tax,	2,260 50
Personal Tax,	8,304 24
	80,560 74

It was resolved that the Mayor be requested to cause all the gutters along the paved streets of the city to be regularly cleansed agreeably to ordinance, without reference to the improvements on the adjoining lots.

It was also resolved, that the City Commissioners, under direction of the Paving Committee, be and they are hereby instructed to cause Mechanic's street (a private street which has been torn up in order to place the iron pipes by the city authority) to be regulated, curbed, and repaved.

The following petition was referred to Messrs. Duane and Johnson.

The memorial of the subscriber respectfully represents,

That your petitioner is one of the watchmen of this city, which post he has held for several years, to the satisfaction, he believes, of his employers. That while in the performance of his duty, on the night of the 21st of July, he was called upon to endeavour to save an individual in Race street, who, in a state of mental derangement, and armed with a large knife, was hanging out of a third story window. In the attempt to draw in this unfortunate man, your subscriber received a cut from the knife on the right hand, which incapacitates him from performance of his duty as one of the watch.

Under these circumstances, and with a family of children depending upon his earnings as their only support, your subscriber, relying upon the justice of Councils, humbly begs leave to recommend his case to the benevolent feelings of the City Legislature.

JOSEPH NORBURY.

Mr. Price presented the following.

To the Select and Common Councils.

The Committee on Markets report, that by ordinance, it is required, that a sewer be constructed in High street, from the west side of Water street to river Delaware, which was designed to have passed through the middle of the new wharf; and it is now apprehended, that an injury would arise from stones and heavy substances falling at the end of the wharf, and from the dirt being carried into the docks; and in heavy rains, at low water, small vessels would be in danger of being filled, particularly at night. These difficulties may be obviated by stopping the sewer at the sluice between the old and the new wharf, which is about 8 feet wide, the whole width of the wharf 56 feet; and, at low water is 26 feet deep. It was intended to have filled this sluice with earth, the expense of which would be avoided. Your committee are of opinion, that many advantages would arise from extending the sewer to the west of Front street. The estimated expense of the sewer is as follows, viz:—

From the west side of Water street to the end of the new wharf,	$1091
Deduct from old, to the end of the new wharf,	264
	827
To extend it to the west side of Front street,	388
	1215

In conformity with these views, the committee request leave to submit the draft of "An Ordinance in relation to the sewer in High street."

The ordinance was passed.—*Phil. Gaz.*

TITLE FOR WASHINGTON.

The public mind was much agitated in the City of Philadelphia on the termination of hostilities. and much speculation existed as to the reward and the manner of bestowing it, which the Commander in Chief was entitled to expect from the important services he had rendered to his country. Some thought a military triumph as was formerly the practice among the Romans, others were in favour of illuminations and fine works, others were of opinion that Congress should confer on him a *name* in allusion to the splendour of his achievements; amidst this variety of sentiment which distracted the attention of the people, the following tale was submitted to their good sense.

TALE.

Hamati was reputed one of the wisest and best of the Emperors of China, having gained an important advantage over the Tartars, who had invaded his dominions; he returned to the city of Nankin, in order to enjoy the benefit of his success. He however rested quietly in his place to the serious disappointment of the people who being naturally fond of pagentry expected a grand triumphal entry, which Emperors upon such occasions were accustomed to make. The murmurs of the people reached the ears of their Sovereign. He loved his subjects and it was always his wish to gratify every reasonable desire. He accordingly assured them that on an approaching festival he would exhibit the most glorious triumph that had ever been seen in the world. Public expectation was awakened; many a rumour was in circulation, and much anxiety was experienced on not beholding any unusual preparation for so splendid an exhibition. The lantern with the thousand tapers were not yet suspended and the fire works were not seen upon the city walls although the day had arrived; crowds of people surrounded the gates of the palace, numerous and many strong symptoms of discontent were visible; in the moment of their fury the gates were thrown open and the Emperor appeared not in the vain and glittering pomp of military show, not in splendour or magnificence but on foot, plainly dressed followed by the blind, the maimed and the destitute all clothed in new and good apparel and each having in hand a sufficient sum of money to supply the wants of a whole year. The people beheld with wonder but they soon perceived the wisdom of their monarch who had taught them that "to free the slave, to relieve the destitute, to comfort the afflicted, to encourage honest industry, and promote the cause of virtue and religion was the true way of conferring happiness on the people and elevating his country to the summit of human glory.

Copied from a Newspaper of 1783.

METEOROLOGICAL REGISTER,

JULY, 1830.—KEPT AT CHILISQUAQUE, BY J. P. SANDERSON

Days	*Barometer.* 9	12	3	*Thermometer* 9	12	3	*Atmosp. Variations.* A.M.	P.M.
1	29 4	29 4	29 4	72	78	82	Clear	Clear
2	29 5	29 5	29 5	74	81	85	Clear	Clear
3	29 5	29 4	29 4	73	78	81	Rain	Cloudy
4								
5	29 4	29 4	29 4	72	78	82	Clear	Clear
6	29 4	29 4	29 4	75	80	83	Clear	Clear
7	29 5	29 5	29 5	72	77	82	Clear	Sunshn
8	29 3	29 3	29 3	73	76	76	Cloudy	Rain
9	29 4	29 4	29 4	63	69	73	Clear	Clear
10	29 5	29 5	29 5	67	71	75	Clear	Clear
11								
12	29 5	29 5	29 5	63	66	67	Cloudy	Rain
13	29 5	29 6	29 6	67	74	75	Cloudy	Cloudy
14	29 6	29 6	29 6	68	75	78	Clear	Sunshn
15	29 6	29 6	29 6	74	78	82	Clear	Clear
16	29 7	29 7	29 7	78	84	87	Clear	Clear
17	29 7	29 7	29 6	79	86	88	Clear	Clear
19	29 6	29 6	29 6	82	87	92	Clear	Cloudy
20	29 6	29 6	29 6	83	89	91	Clear	Cloudy
21	29 6	29 6	29 6	84	89	91	Clear	Clear
22	29 6	29 6	29 6	86	90	88	Clear	Cloudy
23	29 6	29 7	29 7	81	86	87	Cloudy	Rain
24	29 7	29 7	29 6	81	84	87	Clear	Clear
25								
26	29 5	29 5	29 5	83	88	90	Clear	Clear
27	29 5	29 5	29 5	84	87	86	Clear	Cloudy
28	29 4	29 4	29 4	80	83	86	Rain	Rain
29	29 4	29 4	29 4	75	82	70	Sunshn	Rain
30	29 5	29 5	29 5	73	79	82	Clear	Sunshn
31	29 5	29 5	29 5	75	83	85	Clear	Clear

The violent showers on Monday afternoon, were preceded by three of the heaviest claps of thunder that we have heard in this city for some years. The lightning struck the back part of a store in Market street, below Sixth, and near Tenth and Vine, at the depot of the iron hydrant pipes. A house near the corner of Eighth and Shippen streets was slightly struck, and a trowel knocked to a considerable distance from a mason's hand.—*U. S. Gaz.*

LONDON COFFEE HOUSE.

What was called the old London Coffee House before and after the Revolution, now the property of James Stokes Esq. was originally built about the year 1702, by Charles Reed, who obtained his lot, in the year 1701, from Lætitia Penn—in the same year in which William Penn patented it with other grounds to his daughter, to wit—the 29th of 1st mo. 1701. The original lot to Charles Reed contained 25 feet upon Front street and 100 up High street. This his widow conveyed in 1739 to Israel Pemberton. In December, 1751, he willed to his son John, & at his death his widow sold it at Orphans' sale to the Pleasant family, who, on the 26th of September, 1796, sold it with but 82 feet of depth of lot for the great sum of 8216£. 13s. 4d. to James Stokes.

This celebrated house, as a Coffee House, was first introduced to its new employment by William Bradford, the printer, in the year 1754, upon the occasion of the declining of the widow Roberts, who till then had kept a Coffee House in Front street below Blackhorse alley.*

The original petition of William Bradford to the Governor, for his license to keep the house, is somewhat strange to our modern conceptions of such a place, by showing that coffee was ordinarily drank as a refreshment then, even as spirituous liquors are now. It is dated July, 1754, and reads verbatim thus, to wit: "Having been advised to keep a Coffee House for the benefit of merchants and traders, and as some people may at times be desirous to be furnished with other liquors besides coffee, your petitioner apprehends it is necessary to have the Governors' license."

At this Coffee House, so begun, the Governor and other persons of note ordinarily went at set hours to sip their coffee from the hissing urn, and some of those stated visiters had their known stalls. It was long the focus which attracted all manner of genteel strangers, the general parade was outside of the house under a shed of but common construction extending from the House to the gutter way, both on the Front street and High street sides. It was to this, as the most public place, they brought all vendues of horses, carriages, and groceries, &c. and above all, here Philadelphians once sold negro men, women and children as slaves!

When these premises were rented in 1780, to Gifford Dally, the written terms with John Pemberton, a Friend, the then proprietor, were so unusual and exemplary for a tavern as to deserve a record, to wit: On the 8th of 7th mo. 1780, the said Dally "covenants and agrees and promises that he will exert his endeavours as a christian to preserve decency & order in said house,&to discourage the profanation of the sacred name of God Almighty by cursing, swearing, &c. and that the house on the *first day* of the week shall always be kept closed from public use, that so regard and reverence may be manifested for retirement and the worship of God;" he further "covenants, that under a penalty of 100£. he will not allow or suffer any person or persons to use, play at, or divert themselves with cards, dice, back-gammon, or any other unlawful game." To secure the fulfilment of these purposes he limits his lease for trial to but one year, and next year he renews a like lease for two years—after this, to my knowledge, he solicited Mr. Stokes to occupy it as a dwelling and store, and finally to purchase it for private use—a thing which Mr. Pemberton said he much preferred.

Such religious scruples in regard to a public city tavern, would look strange enough to Europeans accustomed to the licensed gambling and licentiousness practised at the Orleans palace at Paris! The submission to such terms, in such a city as Philadelphia then was was, strongly marked the moral feelings of the town.

*At the house now Dixon's—the same which became the store of Rhea and Wikoff, in 1755.

It might be curious to connect with this article the little history we possess of any anterior Coffee House.—The earliest mention we have seen of a Coffee House, was that built by Samuel Carpenter on some of his ground at or near to Walnut street. In 1705, he speaks of having sold such a building sometime before to Captain Finney, who was also Sheriff.* I am much inclined to think it was on the east side of Water street, adjoining to Samuel Carpenter's own dwelling, being probably the same building which in the time of the colony was called Peg Mullen's celebrated beef-stake and oyster house, and stood then at or near the present Mariners' church. The water side was the first court end of the town, and in that neighbourhood Carpenter had erected a bakery, crane, public scales,† &c. It is also possible it may have been on the north west corner of Front and Walnut street, where was once a frame building which had once been what was called the first Coffee House, and, at another period, the first Papal chapel. The present owner of that corner, Samuel Coates, Esq. now having a large brick building there, told me he had those facts from his uncle Reynalls, the former owner, who said that at a very early day the Coffee House there was kept by a widow, Sarah James, afterwards by her son James James, and lastly by Thomas James, jun. The Gazettes too, of 1744 and 1749, speak of incidents at "James' Coffee House."‡ Mrs. Sarah Shoemaker, who died in 1825, at the age of 95, told me that her father or grandfather spoke of their drinking the first dish of tea, as a rarity, in that Coffee House. But I perceive a sale at auction is advertised in the year 1742, as to take place at Mrs. Roberts' Coffee House," which was in Front street below blackhorse alley, west side—thus indicating that while she kept her house there, Mr. James was keeping another Coffee House at Walnut street. I notice also, that in 1744 a recruiting lieutenant, raising troops for Jamaica, advertises himself to be seen at "the widow Roberts' Coffee House." There she certainly continued until the year 1754, when the house was converted into a store. I ought to add, that as early as the year 1725 I noticed a case of theft, in which the person escaped from "the Coffee House in Front street by the back gate opening out on Chesnut street;" from which fact I am inclined to think it was then the same widow Roberts' house, or some house still nearer to Chesnut street.

In the year 1741, John Showbert marks an advertisement in the Gazette, saying he is about to remove, from the London Coffee House, near Carpenter's wharf, to the house in Hanover square, about half a mile from the Delaware, between Arch and Race streets, "which is a short walk and agreeable exercise."

Watson's Annals.

*The Common Council proceedings, of 1704, are dated at Herbert Carey's inn, and, at other times, at "the Coffee House."

†I since preceive that Edward Bridges, in 1739, advertises his dry-goods store, "at the corner of Front and Walnut streets, commouly called the Scales," thus proving that Samuel Carpenter must have originally had his line on Walnut street, and of course including the lot afterwards James' Coffee House.

‡The Philadelphia Mercury; of 1720, speaks of the then Coffee House in the Front street.

The York, (Penn.) Republican contains a description of a new rail-road car invented by Mr. John Pollock of Chester county. Its improvements and advantages are said to consist in a reduction of friction, by throwing away the flanges commonly attached to the wheels, which are kept in place by a pair of small horizontal guide wheels, placed at either or both ends of the car, as may be thought necessary. Secondly, in the facility of crossing common roads. The inventor also thinks that he has so far overcome friction, as to be able to use a road, the rails of which are not faced with iron.

PUBLIC SALE OF REAL ESTATE,
By C. J. Wolbert, Auctioneer.

August 12.

76 acres 2 quarters and 28 perches of Meadow Land, situated in Tinicum Township late the Estate of Thos. Bradley, dec.; sold by the acre, at $147

A frame messuage, barn, stable, milk house and 56 acres 103 perches of Meadow Land, situate in Kingsessing, same Estate, per acre 162

3 Acres 149 perches of Upland, adjoining the the above, per acre, 260

A Frame barn and 11 acres and 3 perches of Meadow Land, situate in Moyamensing, per acre, 135

A dwelling, barn, milk house, stabling, hay house, &c. and 34 acres, 3 quarters, and 32 perches of Meadow and Upland, situated in Passayunk Road, 261

A large frame barn and 95 acres of prime Meadows, situated on Greenwich Island, per acre, 146

The Delaware house and lot of gound at Delaware City; the lot 108 feet by 100, subject to a ground rent of 84 dols. 5000

Two brick houses and lot of ground, situate on the south side of Noble street, between John and Seventh street, 28 feet by 42, subject to a ground rent of 45 dols. 1,675

The right, title and interest of———, into the large lot of ground on Seventh street, 600

CHESTER, Pa. August 13.

Great Hail Storm.—The most severe and destructive Hail Storm we have experienced for a great number of years, traversed the north eastern part of Delaware county on Thursday the, 5th inst. The hail was accompanied with torrents of rain, and a very heavy gale of wind. Scarcely a house in its course escaped with unbroken windows; in many houses from 30 to 100 panes were broken. The blades of the corn are torn into tatters, and the foliage of every other plant which presented a broad surface has the appearance of having been exposed to repeated discharges of musketry.—Cabbage especially, on account of the brittleness of its leaves, is almost wholly destroyed. Several hailstones measured each upwards of three inches in circumference, and it is said some were seen much larger.

The Leopard Tavern in Eastown Chester county is as far north west as we have heard of its ravages. From thence it pursued a south east direction, crossing the great southern road somewhat east of Darby. Further we have no information of its progress. Its breadth was about three miles.

The damage done is certainly much less than if the storm had occured a month earlier in the season, though the corn crops are considerably injured, especially the fodder. A remarkable phenomenon attended this storm, and fortunately mitigated its severity—when the hsil was most violent the wind was most moderate, and so conversely.

The following is the population of Gettysburg, as enumerated by Mr. Sheffer last week:

Free white males,	736
Free white Females,	635
Free persons of color,	91
Slaves for years,	5
3 prisoners not included	
Total,	1467
Population in 1820,	1102
Increase,	365

Besides the above there are a number of families who may be said to be in *town*, though they are not in the borough, who would increase the population from 40 to 60.

CULTURE OF THE SUNFLOWER.

It appears by the following letter that the cultivation of the Sunflower has attracted considerable attention in this State and that it may become an important article.

The Sunflowers—its culture, product, properties, uses and value.

The sunflower is cultivated like Indian corn, planted in rows—the rows three feet apart and stalks eighteen inches.

Any land which produces corn will yield from 50 to 60 bushels per acre, and it is worth 75 cents a bushel.

The single headed kind is preferable, and as soon as ripe, which is known by its shattering—the heads are taken off, carted to the barn floor, and immediately threshed out with the flail, it should be cleaned with the wind mill, [or fan we suppose,] and then spread out, and occasionally turned or stirred to become dry, if left, upon a large heap it may mould.

By an improved machine for extracting the oil, a bushel of seed yields a gallon of oil. Three quarts cold pressed, and one quart by heating. The cake when ground is very nutritive as cattle feed, and will pay the expense of the miller.

The oil used as a purgative appears to have the same effect as castor oil, without the nausea.

Of the bottles sent, one marked with a yellow ribbon, was expressed about two months ago—the three other bottles were expressed four weeks since. The first is clearer, owing to the difference of the four weeks; it clarifies without any preparation. The three bottles are finer in their taste than that marked, which is owing to an improvement in the machinery, for making it.

A bushel of seed will plant about 10 acres. I can furnish any gentleman disposed to cultivate it with the best seed, I expect to raise about 500 bushels this season, and have engaged others in raising probably as much more. CHAS. A. BARNITZ, of York, Pa.

American Farmer.

OBITUARY.

In the Borough of Wilkes-Barre, on Wednesday last, another of the few remaining aged citizens of this place, departed this life at the advanced period of seventy-nine years. The deceased, JESSE FELL, Esq. had resided in this county more than forty years. He has filled several important stations as a public officer. So popular were his talents that in the short residence of a few months in the county, he so far secured the good opinion of his fellow citizens, that he was elected by them as Sheriff of the county. Soon after the term of that office expired, he was appointed to the responsible trust of Associate Judge. This station he filled to the day of his death, with the entire approbation of his fellow citizens. In the discharge of his duties he was regular and assiduous—And by strict temperance and regularity of life, he retained his mental energies without apparent decay. For several years he officiated as Clerk to the Commissioners; and no man living understood so well the records of the county. He guarded its interests with zeal and sought their promotion with ability—and the county will not easily find a substitute to supply his loss. In private life the deceased was kind and conciliating—a pattern of industry and temperance, worthy the imitation of his fellow citizens. In religion he professed attachments to the Society of Friends, although ministers of other denominations found his doors of hospitality opened for their entertainment and comfort. When his whole character is viewed there is much worthy of imitation. His sickness was short, and in his sudden death his family have to mourn the loss of a kind relative who always sought to advance their happiness. Few men lived more esteemed, or died more regretted.

The Floating Dock.—We are gratified to find that the Dock invented by our enterprising fellow citizen, *Thomas Cunningham*, is likely to be much more useful and important to the Steam Boat interests, than was at first anticipated. And it also gives us pleasure to be informed, that he has secured the reward of his ingenuity, industry and usefulness by obtaining a patent for his invention.

By this dock, the steamboats are raised entirely out of water, and they lie high and dry till repaired. The process is simple and the thing is done with great promptness and expedition. The steamboat New York, (a very large boat,) is now undergoing repairs in this Dock, and the men employed under her hull, have not water enough about their feet to wash their hands in. This Dock is sunk and the steamboat, (large or small, is run into it,) the gate or gable end of the Dock is then closed, and the engine of the *Steam-Boat*, is made to bail out the water in six hours, and thus she shifts herself, by an application of her own power—Her keel, resting on a beam running through the centre of the Dock, lengthwise, raises the which is to be repaired, 4 or 5 feet high. Owners and Captains of favorite steamboats would willingly give a large sum, even for the satisfaction of *looking* at the hull and keel of their boat—and especially, after a rough trip. To show with what facility and ease that object can be attained, it may be stated, that a steamboat can be run into this Dock in the evening and lifted *five* feet out of water before morning! Such a Dock at Philadelphia, New York and Orleans, would be of incalculable importance to the shipping and steamboats in those ports.—*Pittsburg Statesman.*

A disease of rather a novel and anomalous charater, has lately made its appearance in the lower part of this county. The first few cases which appeared, we are told assumed the character of common *inflammatory Quinsy*. The fauces or parts immediately in the neighborhood of the palate, first become affected with inflamation, which in the course of a few days become covered with white apthæ, or spots of this colour: fever does not usually supervene till two, three, or four days after the local affection, and when it does occur, is of a highly inflammatory character. Several deaths have taken place, and are said to have been occasioned by suffocation, produced by the external swelling of the glands in the neighbourhood of the throat. The swelling usually comes on six or eight days after suppuration or ulceration takes place internally, which swelling is supposed to be produced by the absorption of the matter formed within.

Some of the cases which have more lately occurred, put on some of the characters of putrid Quinsy, and in one or two cases, the scarlet eruption, the common companion of this disease, is said to have appeared.

Although the disease, which I am informed has created considerable alarm in the neighbourhood, may not be highly contagious, yet we would recommend an early separation of the infected from amongst the healthy, and also immediate application for medical advice, as the disease no doubt depends for its remote cause upon the same principle that produces the putrid Quincy in its indignant form, though something modified by climate and habit, which, among children, is both highly contagious and very mortal.—*York Repub.*

Several pages of our first form, are occupied by a most instructive account of the Luzerne anthracite region, copied from the Village Record. The able editor of that paper, is qualified by knowledge and reflection, to write well upon the subject. His opinions in regard to the prospects for the sale of the Luzerne coal, and its excellent quality, as well as his suggestion touching the expediency of forming a Company in Philadelphia, as a counterpoise to the New York and Baltimore associations already existing, are entitled to consideration and respect. How far the discovery of bituminous coal—according to an article in the American Quarterly Review for March last—in the neighbourhood of St. Paul's Bay, and about Quebec, may interfere with the Canada market, we may not now conjecture. If it be sufficiently good and abundant to awaken public attention, it may grow into use before the commencement of the projected canal up the Susquehanna, or the completion of that now in progress, from the Tioga Branch to Seneca Lake. Nevertheless the outlets for the Wyoming, and Lackawanna anthracite, are numerous enough without it.

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The anecdote respecting Count Zinzendorf, to be found in our paper to-day, is believed to be strictly correct. A note sufficiently explains the reason for its exclusion from the Count's memoirs. The biographical sketch which follows, of the latter part of the life of the accomplished, but unfortunate Marquis De La Rouerie, will be perused with interest.

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Three numbers of a semi-monthly paper, called "The Journal of Law," have been published in this city. The Journal proposes to expound in popular language, the philosophy, history, and actual condition of the law in this, the sister states, and in foreign countries; and to embrace in its range of subjects, biographical notices of eminent jurists; medical jurisprudence, some account of literary and benevolent men in different parts of the world, and various topics of general literature. Its design is comprehensive enough, and admits of sufficient diversity to enable the Editors to render it a highly useful and amusing publication. The success of the work must depend upon the amount of ability enlisted in its support, and the selection of suitable topics for discussion. We understand that it is the intention of the enterprising gentleman at the head of the undertaking, to conduct it upon correspondent principles with "The Journal of Health;" that is, as the object of this, is to make every man his own physician, "The Journal of Law," is intended to make every man his own lawyer. Though we doubt hether any such prodigies will be accomplished by these periodicals, yet as their design is to communicate, in familiar language, such kinds of information as has hitherto been accessible or intelligible only to the professed lawyer and physician, we hope they will receive encouragement. If nothing more be done, they will assist the public eye in discerning, with greater clearness, the depths of medical and legal science, and the public judgment, in duly appreciating the labours, privations, difficulties, dangers, and responsibilities incident to professional life.

We are obliged to a subscriber who signs "Peter Single," for his well intended assistance—but, by referring to page 26 vol. 2 he will find the list of Governors brought down to a much later period. The other article also, we had, and were reserving it for use in a different form.